

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A method of laminating a lithium or lithium alloy sheet into a thin film, said method comprising:

- passing said sheet of lithium or lithium alloy between the meeting surfaces of a pair of working rollers to reduce the thickness of said sheet of lithium or lithium alloy to form a lithium or lithium alloy film of reduced thickness, each of said pair of working rollers having a convex cylindrical shape;
- measuring the evenness of the thickness of said lithium or lithium alloy film of reduced thickness with an optical system;
- adjusting the profile defined by said meeting surfaces of said pair of working rollers in response to measurements of the optical system to control the shape and profile of said lithium or lithium alloy film of reduced thickness being laminated by applying forces to the end portions of said working rollers such that each of said pair of working rollers bends thereby modifying the profile defined by said meeting surfaces with a deviation of 10 microns or less from a linear profile to produce a lithium or lithium alloy film of near constant thickness throughout its length and width;
- removing said lithium or lithium alloy film of reduced thickness from between said pair of working rollers by applying a controlled tension to said lithium or lithium alloy film.

2. (Canceled)

3. (Canceled)

4. (Previously Presented) A method as defined in claim 1 wherein a pressure sufficient to reduce the thickness of said lithium or lithium alloy sheet is evenly applied onto said working rollers by at least one pair of back-up rollers.

5. (Original) A method as defined in claim 4 wherein pressure and forces are generated by hydraulic piston-cylinders assemblies.

6. **(Original)** A method as defined in claim 5 wherein adjustment of pressure and forces is provided through hydraulic control valves adapted to regulate hydraulic fluid debit.
7. **(Original)** A method as defined in claim 4 wherein pressure and forces are generated by electric actuators.
8. **(Previously Presented)** A method as defined in claim 1 wherein prior to the step of passing said sheet of lithium or lithium alloy between said pair of working rollers, said lithium sheet is rapidly wound through a series of tightly packed upper rollers and lower rollers to eliminate any lateral displacement of said lithium sheet thereby ensuring said lithium sheet is fed straight into a central portion of said working rollers without any lateral weaving motion.
9. **(Original)** A method as defined in claim 1 wherein said working rollers are made of stainless steel.
10. **(Original)** A method as defined in claim 9 wherein said working rollers are coated with chrome.
11. **(Previously Presented)** A method as defined in claim 1 wherein said working rollers are made of at least one of plastic and acetal.
12. **(Original)** A method as defined in claim 1 wherein a lamination lubricant is applied to the sheet of lithium or lithium alloy.
13. **(Currently Amended)** An apparatus for laminating a lithium or lithium alloy sheet into a thin film, said apparatus comprising:

a lithium or lithium alloy sheet feed roller; a lamination lubricant dispensing unit; a pair of working rollers mounted onto supporting members, each of said pair of working rollers having a convex cylindrical shape defining a lamination surface adapted to reduce the thickness of said sheet of lithium or lithium alloy to form a lithium or lithium alloy film of reduced thickness;

an optical measurement system for measuring the evenness of the thickness of said lithium or lithium alloy film of reduced thickness; adjustment means said supporting members being linked to the optical measurement system for adjusting the profile of said lamination surface defined by said pair of working rollers in response to measurement of the

optical measurement system by applying forces to said working rollers such that each of said working rollers bends thereby to control the shape and profile of said lithium or lithium alloy film of reduced thickness being laminated; and

a winding roll for winding said lithium or lithium alloy film of reduced thickness, said winding roll connected to a driving means for winding said film under a controlled tension.

14. (Cancelled)

15. (Currently Amended) An apparatus as defined in claim [[14]] 13 further comprising at least one pair of back-up rollers, each adjacent and in contact with one of said pair of working rollers and adapted to apply pressure onto the adjacent working roller.

16. (Currently Amended) An apparatus as defined in claim [[14]] 13 further comprising hydraulic piston-cylinders to generate a necessary force to bend said working rollers.

17. (Currently Amended) An apparatus as defined in claim [[14]] 13 wherein hydraulic piston-cylinders are mounted onto support frames to which are mounted said back-up rollers.

18. (Cancelled)

19. (Original) An apparatus as defined in claim 16 wherein adjustment of pressure and forces is provided through hydraulic control valves adapted to regulate hydraulic fluid debit.

20. (Previously Presented) An apparatus as defined in claim 13 further comprising a straightener having a series of tightly packed upper rollers and lower rollers adapted to eliminate any lateral displacement of said lithium or lithium alloy sheet thereby ensuring said lithium or lithium alloy sheet is fed straight into said lamination surface without any lateral weaving motion.

21. (Original) An apparatus as defined in claim 13 further comprising a thin film of insulating material which is winded around the winding roller to separate layers of lithium or lithium alloy film such that they will not adhere to each other.